Remarks

The present Response is to the Office Action mailed 02/03/2009. Claims 23-26, 28-38, and 40-46 are standing for examination, and new claims 47-73 are added.

From the action:

Response to Arguments

Applicant's arguments (pages 6-13) filed on 11/18/2008 with regard to claims 23-26, 28-38, and 40-46 have been fully considered but they are moot in view of new grounds for rejection.

The arguments related to the 112 1st rejection, however, have not been found to be persuasive. The Specification does not provide support for the terminology of "executing from a digital storage media in a computing appliance." Hence, it is unclear what the Applicant is seeking to patent due to its lack of support in the Specification, whether the terminology includes transmission or storage medium such as RAM, ROM, flash memories. Further, the Applicant has failed to show support for the limitation in the Specification. The rejection is maintained.

The arguments regarding directed towards the reference of Mast has been considered moot in view of a newly applied reference to teach the claimed limitations in light of the newly amended claim limitations.

Applicant's response:

Applicant herein amends the specification and independent claims to overcome the 112 rejection. Applicant also provides arguments against the teachings of the newly applied reference.

Claim Rejections - 35 USC § 112

7.   Claim 35 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was

not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitation in claim 35 recites the limitation of ""executing from a digital storage media in a computing appliance," which was not disclosed in the original application as filed on 05/10/2005.

8.   Claims 36-46 are rejected as being dependent upon a rejected base claim.

Applicant's response:

Applicant herein amends the specification to include a non-exhaustive statement regarding a computer-readable medium, which is *notoriously* well-known in the art as being required to execute processing of software. Applicant is aware that the Office has recently determined that it is necessary to use this terminology in order to properly define the claim within the boundaries of statutory subject matter. Therefore, an amendment to the specification is necessary constituting a non-exhaustive statement of what the phrase "computer-readable medium" would be as it would have been known to one of ordinary skill in the art at the time of the invention, in order to verify that the term "computer-readable medium" could not be taken in the context of non-statutory subject matter. As applicant's specification clearly introduces software modules in a processing environment, applicant is merely providing a teaching that is inherent within the specification, as filed, and not adding new matter. Therefore, applicant believes the rejection should be withdrawn.

From the action:

Claim Rejections - 35 USC § 102

10.   Claims 23-26, 28, 30, 33-38, 40, 42, 45, and 46 rejected under 35 U.S.C. 102(e) as being anticipated by Roushar (US 7,403,890).

As to claim 23, Roushar teaches a language-processing system comprising:

a computerized appliance (see col. 45, lines 64, knowledge appliance device) having user input and output interfaces (see col. 46, lines 35-67, various input and output interfaces)), one or more processors (See col. 46, lines 5-11, one or more processors), and one or more machine-readable media accessible to the one or more processors (see col. 46, lines 20-35, various memory components described); and

operating code executed by the one or more processors from the one or more machine-readable media (see col. 19, lines 60-54, specialized software) for processing text and audio messages;

wherein text and audio messages input (see col. 27, lines 44-49, input is from voice recognition (audio input) and keyboard) to the system are separated into words and phrases to be considered individually (see col. 27, lines 49-54, text stored in memory and objects from the sentences are stored temporarily and recognized), meaning is determined for individual ones of the words and phrases (see col. 36, lines 36-37, language analysis on object performed and see lines 66-67 and col. 37, lines 25-34, semantics of sentence components), resulting in statements of meaning(see col. 38, lines 38-40, cause and effect relationships), and the resulting meaning statements are linked (see col. 38, lines 38-40, cause and effect relationships), providing meaning for the message (see col. 39, lines 1-3 and lines 5-17, where the interpreter uses the results for further generation such as dialogue).

As to claims 24 and 36, Roushar teaches wherein logically false and meaningless input messages are identified by the nature of the linked-meaning statement (see col. 28, lines 6-10, fitness used after analyses (semantic) col. 28, lines 60-61 missing information

and multiple interpretations questions are generated as a result of the input) (e.g. Missing information causes meaningless input and false input).

As to claims 25 and 37, Roushar teaches wherein ambiguous input messages are made clear by the nature of the linked-meaning statement (see col. 28, lines 60-62, clarifying questions are generated based on missing information or multiple interpretations)

As to claims 26 and 38, Roushar teaches further comprising a situation model updated as language is processed (see col. 39, lines 41-49, where the interpreters can learn).

As to claims 28 and 40, Roushar teaches wherein conflicts between the linked meaning statement and the situation model are detected and reported to the user (see col. 5, lines 21-23, where the interpreter uses a knowledge base and col. 28, lines 60-col. 29, lines 3, where clarifying questions are presented to the user as stated in col. 28, lines 19-21).

As to claims 30 and 42, Roushar teaches wherein the system finds unlinkable meaning statements (see col. 28, liens 60-67 and col. 29, lines 1-3, missing or multiple interpretations cause unlinked statement until user inputs) and reports the unlinkable statements to an external entity (see col. 28, lines 19-21, user is presented questions).

As to claims 33 and 45, Roushar teaches wherein meaning are applied to user to measured values (see col. 27, lines 45-48, input received via various input devices and see col. 27, lines 64-col. 28, lines 5, where multiple analyses including semantic and context analysis is performed), and these meanings are applied to the situation model (see col. 39, lines 41-46, learning by the interpreter done via mining processes for changes to knowledge base).

As to claim 34 and 46, Roushar teaches further comprising an artificial language intelligence (ALI) module (see col. 36, lines 28, interpreter based on language model) having cognitive routines of various classes (see page 36, lines 38-col. 37, lines 11, various analysis types), including routines for extraction of meaning (see col. 36, lines 66, semantics)), context-bound modification (see col. 37, lines 5, pragmatics associated with changes in context), context-bound association (see col. 37, pragmatics includes

taxonomical descriptions of objects in real world), and logical inferences (see col. col. 37, lines 5-11, pragmatics), the ALI module making the routines available to the extractor (see col. Figure 10, where in step 1001 input is received and processing performed utilizing the routines of the interpreted in 1008 knowledge network, 1007 morphology analysis, 1010 semantics analysis, 1011sytax analysis, and 1012 context analysis), and other modules of the system (see Figure 10, and various modules interacting with each other).

As to claim 35, Roushar teaches a method, executing from a digital storage media (see col. 46, lines 20-35, various memory components described) in a computing appliance (see col. 45, lines 64, knowledge appliance device), for language processing, comprising the steps of:

(a) extracting individual words and phrases from a message input as either voice or text (see col. 27, lines 44-49, input is from voice recognition (audio input) and keyboard); and

(b) determining meaning for individual ones of the words and phrases, resulting in meaning statements phrases (see col. 36, lines 36-37, language analysis on object performed and see lines 66-67 and col. 37, lines 25-34, semantics of sentence components); and

(c) linking the extracted meanings into meaning statements (see col. 38, lines 38-40, cause and effect relationships),, providing a linked meaning statement (see col. 39, lines 1-3 and lines 5-17, where the interpreter uses the results for further generation such as dialogue).

Applicant's response:

Regarding claims 23 and 35, the Examiner states Roushar teaches; "meaning is determined for individual ones of the words and phrases (see col. 36, lines 36-37, language analysis on object performed and see lines 66-67 and col. 37, lines 25-34, semantics of sentence components), resulting in statements of meaning(see col. 38, lines 38-40, cause and effect relationships), and the resulting meaning statements are linked (see col. 38, lines 38-40, cause and effect relationships), providing meaning for the

message (see col. 39, lines 1-3 and lines 5-17, where the interpreter uses the results for further generation such as dialogue).

Applicant respectfully disagrees with the Examiner's interpretation of Roushar in relation to applicant's claim limitations of determining meaning. Applicant's specification teaches the NLP systems currently available on the market (as in Roushar) rely on probability calculations regarding the common occurrence of sequences of letters or character strings. However, the meaning of the analyzed character strings cannot be ascertained or described thereby. In contrast thereto, CES ascertains the meaning of verbal messages, including the consequences of actions and events. This takes place in three global processing steps.

Meaning reconstruction: all concepts of a statement are meaningfully linked

Conflict analysis: Checking **as** to whether

    a) the reconstructed meaning is appropriate to the current situation

    b) undesirable secondary/side effects arise.

    Realization: the statement and its consequences are converted virtually (or in reality, through a connected technical system).

CES is capable of comprehending combinations of words that have not previously been learned--the relationships between the words of a verbal input are not stored in the knowledge base but rather are generated online by the intelligence module using cognitive procedures. Therefore, the knowledge base of CES is in the highest degree economical (extremely small memory requirements: approximately 1 MB for 7,000 concepts) and flexible--any combinations of all the words contained in the lexicon can be analyzed. Each new entry (word or concept) is integrated in the knowledge base and automatically improves its structure and capacity. In other words, CES grasps and evaluates natural-language information by simulating human language comprehension.

Applicant argues that Roushar fails to teach determining actual meaning of verbal input, and generating meaning statements, as claimed. Roushar clearly uses structure of words in a position relation, or context, within a sentence to guess at what the speaker or

text means. Roushar specifically teaches in col. 28, lines 46-59:

> *Speakers of human language or other text generators exhibit varying levels of*
> *competency. The multi–dimensional interpreter algorithm is based on the following*
> *critical assumptions:*
> *1) The text is a relatively good reflection of the intent of the speaker or other source*
> *of text.*
> *2) With the application of enough contextual constraints, the intended meaning(s) will*
> *be discernable.*
> *3) When needed, the system will be able to ask salient clarifying questions (1015).*
> *The selection algorithms that assign, adjust, and interpret fitness are intended to*
> *make the first two assumptions valid and the third assumption possible.*

The art of Roushar provides a device for interpretation wherein words are searched and matched in a separate language. The present invention determines actual meaning of words and phrases to be used in a command function downstream. Applicant argues that in Roushar it is not imperative to determine real meaning and generating meaning statements because the system searches and matches vocabulary wherein nouns (agents) and verbs (activity) are discerned within a sentence, wherein real meaning is not determined, as claimed but it may determined that the input means to have a verb in this position, or a noun in another position within a sentence, i.e. contextual constraints (col. 30, lines 13-26).

Although Roushar, in col. 36, may state certain conditions may have an effect on meaning, such as phonology or prosody, the art is absent as to determining the actual meaning intended or generating a meaning statement. For example, Roushar teaches Semantics (1709) is about meaning, and more specifically include "agent" or the person or thing acting, "instrument" or the thing used by the agent to perform the action, "object" or the thing being acted upon., and other thematic roles. Applicant points out that Roushar can determine what part of a sentence is an agent or instrument, the actual meaning of the agent or instrument is not discerned nor is a meaning statement generated,

but searched and matched and placed correctly in a sentence generated in another language.

Applicant believes claims 23 and 35, as amended and argued above, are patentable over the art of Roushar. Claims 24-26, 28-34, 36-38 and 40-46 are patentable on their own merits, or at least as depended upon a patentable claim.

Applicant has added 27 new claims, reciting limitations in combination fully supported by the specification, and defining the invention in ways not taught in the references cited or applied, taken singly or in combination.

Summary

As all of the claims, as added, amended and argued above, have been shown to be patentable over the art cited and applied, applicant respectfully requests reconsideration and the case be passed quickly to issue.

If any fees are due beyond fees paid with this amendment, authorization is made to deduct those fees from deposit account 50-0534. If any time extension is needed beyond any extension requested with this amendment, such extension is hereby requested.

Respectfully submitted,
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